that it does not burst through into the fissure of Sylvius, from which it is separated only by a thin plane of fibres, or enter the temporo-sphenoidal lobe. The fibres torn are those of the corona radiata as they enter from the central ganglia to pass to the hemisphere; and it is probable that the intersection of the fibres of the external capsule with these, and the passage of minute arteries and larger and more numerous veins, afford minute openings by which the blood makes its way. Ultimately the blood may penetrate the ventricles or split up convolutions.—*Med. Times and Gaz.*, July 15, 1876.

16. *Spinal Apoplexy.*—In the January No. of Virchow's *Archiv* (Bd. lxv.), Dr. GOLTDAMMER describes fully a case of paraplegia, which he regards as undoubtedly the result of spontaneous hemorrhage into the spinal cord, independent of any previous inflammatory softening. On April 21, 1874, a girl, aged fifteen, apparently in perfect health, was suddenly seized with violent pain in the back between the scapulæ, extending rapidly to the arms, the lower part of the chest, and the epigastrium. The right leg became at once powerless, and in another half hour the left was in the same condition. Two hours after the commencement of the attack she had complete paraplegia, complete anæsthesia up to the level of the nipples, persistence of reflex movements in the lower extremities, and paralysis of the bladder; in the upper extremities, severe pains, but free movement and normal sensation. The functions of the brain were perfect. The case continued to present all the characters of paraplegia from a localized lesion of the spinal cord. The electric irritability of the muscles remained normal; the urine was retained; and bedsores appeared. After two months, the reflex irritability became excessive; somewhat later spontaneous twitchings of the paralyzed muscles took place; and towards the end of August the legs were persistently contracted, at first in the extended, later in the flexed position. Increasing bedsores led to a fatal result, twelve months from the beginning of the illness. On opening the spinal canal, the dura mater was found normal; the spinal cord was contracted to half its width at a point corresponding to the second dorsal nerves, and here the pia matter was a little thickened. This narrow portion had a vertical extent of about one-sixth of an inch. On section there was no trace of grey matter, but the greater part was of rather hard consistence, and in colour rusty brown with whitish-yellow streaks. The white columns on the left side were softer and tinged gray. A rusty streak was traceable in the situation of the right posterior cornu upwards to the cervical swelling, and downwards as far as the fifth dorsal nerves. On microscopical examination, the dense rust-coloured portion was found to consist of a firm network of connective tissue fibres, with embedded fat globules, large masses of hæmatoidin crystals, and collections of brown granular pigment. Nerve-elements were entirely wanting, and the vessels showed fatty and granular degeneration. The grayish columns on the left side, and the whole cord for a few millimetres above and below the rusty cicatricial tissue, were in a condition of softening with the usual granule-corpuscles replacing the nerve-fibres and ganglion-cells. Secondary degeneration could be traced downwards in the lateral columns to the lumbar region, and upwards in the posterior columns as far as the calamus scriptorius.—*Lond. Med. Rec.*, July 15, 1876.

17. *Pathological Alterations in the Nervous System in Rabies.*—Dr. KOBSNIKOFF, of St. Petersburg, describes the following microscopical changes found by him in the nervous system of ten dogs which had suffered from hydrophobia. The principal alterations were met with in the sympathetic and spinal ganglia, and were of two kinds: 1. Extreme dilatation of the bloodvessels, which were infarcted with red blood-corpuscles. Some of the latter had escaped from the vessels, and lay outside, scattered among a number of white corpuscles in the perivascular spaces. In some parts of the vascular walls, hyaloid masses of various shapes were visible, which sometimes projected into the lumen of the vessels so as to block them completely. These masses appeared to be produced by a metamorphosis of the white and red blood-corpuscles. 2. Around the nerve-cells, collections of round indifferent cell-elements were seen, some of

which had penetrated into the protoplasm of the nerve-cells, so as to alter the shape of the latter and give them a jagged outline. Sometimes the nucleus was forced outwards to the edge of the nerve-cell and sometimes the new cell-elements appeared to occupy the place of nerve-cells, which were no longer visible. Dr. Kobsnikoff remarks that the pathological changes which occur in rabies closely resemble those described by Dr. Popoff in typhoid fever, and after mechanical injuries to the nervous system.—*Med. Times and Gaz.*, July 29, from *Centralblatt*, Nov. 29, 1875.

18. *Hereditary Transmission of Syphilis.*—Dr. M. Kassowitz, of Vienna, has published in *Stricker's Jahrbücher* (Pt. iv. 1875) his somewhat extended experience in the Hospital for Children in Vienna, where he sees about thirty or forty cases of inherited syphilis in the year. The first part of the paper is devoted to the question as to the mode in which syphilis is transmitted. The possible methods may be divided into two—(1) Direct transmission by the sperm or germ cell being infected by a syphilitic father or mother; (2) Infection *in utero* from a syphilitic mother. The depth and seriousness of the affections in inherited syphilis, suggest at once that the infection is by the first method, and has involved the creature from its generation, and this view is supported by the author's own observations. Out of 119 cases he finds that the inheritance was clearly from the father in 43 cases, the mother being healthy in that number; both parents were syphilitic in 23 cases, the mother alone in 10; in the remaining 43 cases the mode of inheritance was doubtful. These statistics indicate that the father is most frequently the source of infection, and they corroborate the view that a healthy mother may bear a syphilitic child. He believes, in fact, that this is a frequent occurrence. Intimately related to this is the question whether a child, who is syphilitic from the father, can infect the mother through the placenta? and the author believes that there is no evidence of this. Similarly a syphilis acquired by the mother during pregnancy is not transmitted to the child. The syphilis of the mother may cause abortion, may affect the nutrition of the fœtus; but unless the mother has been syphilitic at the period of conception, she does not transmit it. Syphilis is therefore transmitted either by father or mother only at the period of conception. This leads to some interesting speculations as to the form or vehicle of the syphilitic virus. It must be more stable than that of other infective diseases. It seems only carried by corpuscles, such as those of blood or pus, and such bulky objects are not capable of passing the septa between child and mother. It is not conveyed in milk, or blood serum, or vaccine lymph, unless these contain some such corpuscles. In this respect it differs from the virus of measles or smallpox, which again may be communicated during pregnancy by mother to child. The virus of these is volatile as compared with the more fixed syphilitic poison. Then it is noted that the intensity of the virus diminishes in direct arithmetical proportion with the lapse of time. The first child after a recent infection will die in utero at the fifth or sixth month, the next will live till the seventh or eighth month, then a child may be born alive at full time, but with an eruption of pemphigus, or the eruption may begin during the first days of extra-uterine life, or in later cases not till the second, third, or fourth week, or it may be delayed till the second or third month. If the first occurrence of the eruption is delayed to the third month, the intensity is already much diminished in the parents. It is exceptional for a child to be born alive during the earlier years after infection of the parents, unless mercurial treatment has been used, and almost all children born in the first year are premature. All these facts point to the virus being coarse, and almost measurable in its quantity. According to the author's cases, syphilis may be transmitted fourteen years after the original infection, but on an average it stops at ten years. It may be transmitted during the entire absence of symptoms, and the intensity of the symptoms in the child seems entirely independent of the presence of manifestations in the parent. Lastly, inherited syphilis may intensify other diseases, such as scrofula, phthisis, rickets; but it does not directly produce these. It is a perfectly definite and distinct disease, with characteristic phenomena, which the author in a future paper proposes to describe.—*Glasgow Medical Journal*, July, 1876.